

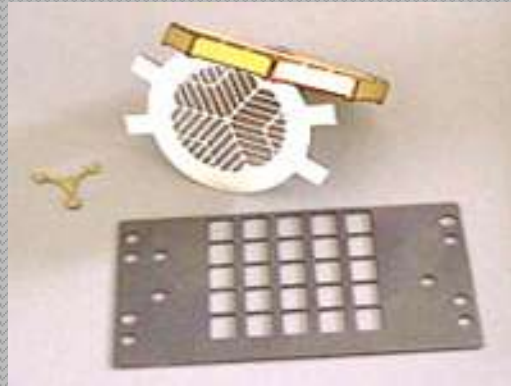


Laser Welding and Laser Marking Services

In early 1990, Rache Corporation began developing laser technology to accurately cut thin metal shapes. Over the years, we have become the industry leader in Thin Metal Laser Cutting.

Rache Corporation provides laser cutting, laser welding and laser marking services to a wide range of industries including medical devices, microwave components, aerospace, automotive and more. We are organized to provide cost effective laser solutions to industrial challenges in a customer-comes-first environment.

Thin Metal Laser Cutting



Over 20 years ago, we developed a process to laser cut thin metals that has become the industry standard today. Metals such as brass, copper, aluminum, stainless steel, titanium and many exotic and high temperature alloys can be cut exhibiting no edge factor, roll off, or edge deformation. Thicknesses range from .0005 to .060 inches. Laser cutting is an excellent alternative to chemical etching.

Depending on the material, inside corner radii can be held to .001 inches, Hole sizes down to .002 inches in diameter can be drilled and dimensional tolerances of $\pm .001$ of an inch can be held.

Our laser "stitching" allows parts to be "finger formed" during production saving time and additional operations.

Rapid Prototyping of Thin, Flat Shapes



Rapid prototyping is our specialty. All we need is a CAD file to get started and since we stock many of the popular materials, our lead time is just a couple of days. Same day service is available.

Microwave stripline and EMI shielding are excellent candidates for rapid prototyping. Initial designs can be tested and improved within days. Production quantities of final designs can be delivered only days after approval. Shields can be "laser stitched" providing bend lines for hand forming which eliminates the need for expensive tooling. As always, our lead time for prototypes is only a few days after receipt of your order. Since no artwork is needed, laser cutting is an excellent alternative to chemical etching offering better dimensional tolerances, shorter lead times, square edges and very sharp inside radii.

Laser Marking



Laser marking has become the method of choice for marking products requiring permanent, high quality graphics, serial numbers, bar codes and text. Lasers will mark on irregular and hard to reach surfaces. No inks, dyes or, chemicals are used in the process. Laser marking is an excellent alternative to chemical etching and falls under MIL-STD 130. Most metals can be laser marked including anodized aluminum, stainless steel, titanium, copper; brass, nickel and many others. Graphics and logo designs are limited only by your imagination. We work directly out of CAD files so there is no artwork. Sample marking of your product is complimentary.

Laser marking can also be used to modify surfaces and trim and tune electronic circuits. Accurate and repeatable, laser marking has become a cost effective alternative to hand tuning.

Laser Welding & Weld Joint Design



Lasers make exceptional welding tools. Products that require low heat input, tiny weld beads (.020 inches in diameter) or have inaccessible weld area are excellent candidates for laser welding. Some of the materials being welded today are aluminum, stainless steel, kovar[®], inconel[®], monel[®], titanium and more.

Our welding engineers have years of experience in welding dissimilar metals, joint design, production tooling and welding applications. Multiple welding centers assure on time delivery and additional capacity for high volume jobs.

**For more information please
visit**

<http://www.rache.com>